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AUTHOR Bruen, Linda; And Others
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ABSTRACT

The project described in this paper focuses on researching approaches to ease the student's transition from elementary to middle school. The method presented equips teachers with an eight-step strategy for helping students think through everyday decisions and stressful situations. The materials target situations that children face while interacting with their peers and adjusting to school. Five major tasks facing new middle school students are identified: (1) managing shifts in role definitions and expectations; (2) managing shifts in social networks and group membership; (3) reorganizing personal social support resources; (4) reappraising oneself and one's life situation; and (5) managing the stress related to uncertain expectations, goals, and abilities. An action-research methodology designed to develop sound curriculum materials for the fourth and fifth grades is presented. Empirical findings concerning the impact of stressors related to the middle school transition on students and the effects of this training on their ability to cope with these stressors are reviewed. Finally, there is a description of a new, ongoing experimental extension of the elementary school program through the discipline system of the middle school, the focus of this effort being to help students think through situations that result in frequent school discipline episodes. (Author/NRB)

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Training Students in Thinking Skills for Solving Social Problems: A Strategy for Helping Students Cope Constructively with School Stressors

Linda Bruene, Juliet Beier, Maurice Elias
Rutgers University

John Clabby
Community Mental Health Center,
Rutgers Medical School, UMDNJ

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Abstract

The project described focuses on researching approaches to ease the student's transition from elementary to middle school. The method used equips teachers to work with a set of curriculum materials built around an eight-step strategy for helping students think through everyday decisions and stressful situations. The materials target situations that children face while interacting with their peers and adjusting to school.

Discussion will focus on three basic areas: (1) action-research methodology designed to develop sound curriculum materials for the fourth and fifth grades; (2) a review of empirical findings concerning the impact of stressors related to the middle school transition on students and the effects of this training on their ability to cope with these stressors; and (3) a description of a new ongoing experimental extention of the elementary school program through the discipline system of the middle school, the focus of this effort being to help students think through situations that are resulting in frequent school discipline episodes.

Training Students in Thinking Skills for Solving Social Problems: A Strategy for Helping Students Cope Constructively with School Stressors

Today, I would like to describe an action-research program that is currently being conducted in Middlesex, New Jersey, The program is conducted by the Improving Social Awareness - Social Problem Solving (ISA) Project. The project began almost six years ago when school administrators from Middlesex Borough, New Jersey, and psychologists from the Community Mental Health Center of the University of Medicine and Dentistry of Rutgers Medical School and the Department of Psychology at Rutgers University joined to develop a school-based program to help reduce the stress and adjustment problems students characteristically encounter during the transition from elementary school to middle school.

This multidisciplinary team came together after identifying a striking increase in persistant academic and behavioral difficulities that emerged among students in the sixth grade. The admission records of the CMHC also reflected this increase, as seventh grade was the modal time for referrals of children and youth for clinical services. This finding fits well with what is currently known about this period in the students' development.

It is well documented that young adolescents' transition from elementary school to middle school can be considered a time of "normal life crisis" (e.g., Johnson, 1980). The "crisis" is created by the wide variety of complex personal and environmental changes that occur during this time. The extent to which this inherently unstable situation demands

active adaptation and coping is best considered within a more general theoretical framework. Feiner and Associates (1983) have delineated five basic tasks that confront any individual when faced with a major life transition. First, there is a major shift in role definitions and expectations. For the new middle school student, this involves a change from one primary teacher and one set of classmates to having multiple teachers (with individual demands and expectations) and an expanded and diverse new peer group. Students are also expected to assume increased responsibility for monitoring their own behavior and academic performance.

Second, a transition involves a shift in social networks and group membership. Sixth graders not only have to adjust to being "low on the totem pole," but often lose daily contact with a contained group of friends from their elementary schools. Third, there is a need to reorganize personal social support resources. Students must develop relationships with many new teachers and students in their day to day functioning, and must learn the meaning of the roles of middle school principal, vice-principal, and guidance counselor.

The fourth major task facing new middle school students is a cognitive reappraisal of oneself and one's life situation. Not only must the student learn to function in a totally new social world, but a wide variety of personal and physical changes result in major shifts in students' self-identity. Lazarus and Folkman (1984) believe that self-appraisal is a critical mediator of coping and will influence how situations are perceived and responded to. Lastly, it is necessary for the students to manage the stress that results from the uncertainty of expectations,

goals and one's ability to meet new demands.

There is now a growing body of evidence that the convergence of all of these demands creates a "fall-out" period, during which many children develop problems such as academic failure, interpersonal difficulties and feelings of alientation that result in meaningful disturbances in their psychosocial functioning (Blythe, Simmons, & Carlton-Ford, 1983; Lipsitz, 1980; Rutter, 1980; Zinn, 1979). In addition, these is ample evidence to suggest that the disturbances are not transitory and create a greater vulnerability to future negative mental health outcomes (Blyth et al., 1983; Toepfer and Marani, 1980).

Having identified the period of transition to middle school as a critical point of vulnerability, the ISA team focused on understanding processes and developing procedures to fortify and support students. The goal of the project was to design a school-based program that would serve to optimize the skills of the young adolescent to adapt and function competently in both interpersonal and academic domains.

An action-research framework was chosen as the vehicle for developing and integrating the new program in the schools. Action-research refers to a process used to develop and test service delivery programs through a sustained collaboration between researchers, program developers and the action agency, which in this case was the school. This ongoing cycle of research and intervention involves joint planning to: define the problem, formulate the objectives, design a mode of program delivery, evaluate the outcomes, and provide feedback information for program revision. Using an action-research framework, questions concerning why a program

is or is not effective and how it might be made more effective are just as important as whether or not a program effectively remedies or prevents the problem it intended to address.

The ISA team felt that an ongoing feedback and program refinement process was particularly essential when working within the complex organizational structure of the schools. They felt that teacher and student feedback was required for the creation of an effective school-based program that could be sustained and successfully incorporated into school routines.

The remainder of this article will describe the process and outcomes of a research cycle of the ISA-SPS project. I will end with a description of where this work has brought us in terms of our current research cycle.

Targeting Relevant Skill Areas

Before designing an intervention to fortify new middle school students, a series of observational and empirical studies and literature reviews were conducted to assess the nature of middle schools and the types of specific situations and behaviors that resulted in problems. A county-wide survey of middle school educators was conducted, and compared with the perceptions of children from a modal school district (Elias, Gara, & Ubriaco, in press). School adminstrators and students differed in their reports. Administrators rated harder school work, tougher teachers and higher expectations for academic performances as the most severe stressors. Children, on the other hand, reported conflicts with authorities (such as being sent to the vice-principal, arguments with teachers and coming to class with the wrong materials) as the most severe sources of stress.

Substance abuse, getting into fights, and missing friends from elementary school were also seen as posing considerable difficulties.

Interestingly, the types of situations that were most salient changed throughout the course of the year. Administrators reported a high degree of consensus when they were asked to report the time(s) of year that particular student problems were most likely to occur. Logistical problems occured early in the year, verbal peer pressure and exclusion, academic demands and issues of power, conflict and coping (i.e. conflict with adult authority figures and with peers, combined with a reduced availability of old friendships) predominated throughout the year, and substance abuse — and new rules for sociability were more likely to become stressors for children toward the end of the year (Elias, et al., in press).

Naturally, all children are not adversely affected when entering middle school. Some researchers have begun to identify qualities and skills that most significantly influence the adaptation process. Those that are most salient include poor decision making skills, low self-efficacy, difficulty reacting to stress without impulsive action or escalation of tension, and poor self-management skills, which can lead peers and adults to see one as inattentive, unprepared, unfocused, or unmotivated (Bierman & Furman, 1984; Cameron & Meichenbaum, 1982; Felner et al., 1983; Janis, 1982; Mechanic, 1983; Moss & Billings, 1982; Simmons, Blyth, Van Cleave & Busch, 1979).

Given the wide variety of relevant problem situations and behaviors identified in this assessment, it was necessary to identify key skills for a preventive program that would be beneficial and applicable for all

students. A primary consideration was to help students learn to cope independently with problem situations before the transition to middle school, where there would be an increase in situations that would call for this ability. In light of these concerns, problem solving thinking skills were targeted as the primary focus of the school-based intervention that I will discuss today. The thinking skills involved in social problem solving include: The ability to (a) accurately perceive the nature and meaning of interpersonal situations, (b) consider alternative means to reach a goal and to anticipate positive and negative consequences of each, (c) carry out a desired behavioral action, (d) anticipate and cope with obstacles, (e) use outcomes of experience to improve future plans, and (f) develop a sense of competence as a problem solving thinker (Elias, Rothbaum, & Gara, 1983).

An advantage of this approach is that once students learn problem solving thinking skills, school staff could then help students learn to apply these skills to a wide variety of individually relevant problem situations. Also, to have prevention, it is necessary to have prediction. Over a decade of research has been devoted to defining the relationship between interpersonal problem solving thinking skills and the adaptation of children and adolescents to complex social environments (Elardo & Cooper, 1977; Elias, Chinsky, Larcen & Allen, 1982; McClure, Chinsky, & Larcen, 1978; Spivack, Platt & Shure, 1976; Urbain & Kendall, 1980).

The Mode of Program Delivery

The approach taken by the Improving Social Awareness - Social Problem Solving Team was to design a prevention curriculum that would be taught to

students in their elementary school classrooms for two years prior to middle school entry (Elias, Clabby, Corr, Ubriaco, & Schuyler, 1982). Children were taught an eight-step problem solving strategy that they could use in both familiar and new problematic situations (Elias & Clabby, 1982).

The development of a curriculum provided the project with a vehicle around which school-based activities could be organized. A well-defined curriculum provided teachers with concrete and specific written materials that minimize preparation time and reduce anxiety or opposition due to work overload. Concrete lesson plans also standardize a set of instructional activities which aids considerably in evaluating the effectiveness of the procedures.

In summary, by providing students with ongoing, detailed and systematic training in a process for thinking through problems, it was hoped that children would be armed with a versatile coping mechanism they could use to handle specific middle school situations.

The Social Problem Solving Curriculum

The primary educational format used in the curriculum combines three instructional componenets. First, audiovisual materials, such as selected television programs or videotapes of live action to absorb attention and engage students are presented and are followed by discussion and processing of what they have observed. Finally, role-play or other experiential exercises involve students in actively working to translate what they have learned into behaviors for use in everyday situations. The curriculum developed by the ISA team involved two distinct phases of training. The first phase, entitled the Instructional Phase, focuses on students'

acquiring knowledge of a specific eight-step strategy for thinking through problem situations. These steps involve:

1) identification of feelings

2) putting problems into words

3) deciding on goals

4) brainstorming alternative solutions to the problem

5) anticipating positive and negative consequences of proposed solutions

6) deciding on a solution after considering alternatives

7) detailed planning of the steps necessary for putting the solution into effect (students are also taught to anticipate possible obstacles that could occur and how they would cope with them)

8) think and reflect on how the plan is working; continue to use problem solving thinking until you reach your goal and use solutions that do not work well as important information for future planning.

At least a full week is used to practice each step and review preceeding steps. Students then enter the Application phase of training. As the title implies, this component of the curriculum involves repeated practice in applying the problem solving thinking steps to a wide variety of everyday situations that could be encountered interacting with peers or around school rules or routines and activities. The purpose of this design is to have students overlearn the thinking skills and to experience success in using them through extensive practice with feedback and reinforcement. This practice in solving problems in the classroom setting, along with encouragement to use the steps, are used to facilitate the transfer of these skills to situations outside the instructional setting.

How Effective Was the Fourth and Fifth Grade Training

Assessment was obtained before training began, before a delayed control group began the Instructional Phase, and at the end of the school year. Multiple measures were made in children's behavioral adaptation. Several results were especially noteworthy. Before intervention, children's responses when asked how they would approach a problem situation were vague, disorganized, and unsystematic. After the Instructional Phase, their responses changed dramatically, clearly reflecting the social problem solving steps. Overall, experimental children reported greater sensitivity to and active concern about their peers' problems than did controls, though the latter group "caught up" following intervention (Elias,et al., 1983). In addition, referral rates from Middlesex Borough to the CMHC have shown a marked decrease from original baseline rates and from those of adjacent, comparable control towns where no problem solving programs were in place. While Middlesex youngsters are similar to the others in the nature of their presenting problems, they appear to be entering the CMHC at slightly higher levels of functioning and earlier than youth in the control towns (Gare, 1984). This trend has been replicated for two successive year. In summary, the ISA-SPS project is having a positive impact on the mental health of children in the Middlesex Borough Community.

How Helpful Was the Training in Helping Children's Transition to Middle School?

A major hypothesis of the ISA project was that the acquisition of social problem solving skills would faciliate students' more successful adjustment in making the difficult and often disruptive transition from elementary school to middle school. This was tested by examining the

responses to the Survey of Middle School Stressors for three groups of children: (a) those who entered middle school with no social problem solving training, (b) those who received only the Instructional Phase, and (c) those who received both Instructional and Application phases. Results found that children entering withouth training were clearly discriminable from those receiving at least some training, in both the extent and severity of situations they considered to be problematic. Stressors such as peer pressure, academic demands, coping with authority figures, and becoming involved in behaviors such as smoking and substance abuse were felt to be significantly more difficult by children in the untrained group. Further, a significant differentiation could also be made between children with different amounts of training, in the expected direction. Perhaps most importantly, a canonical analysis of the relationships of all children's social problem solving abilities to their responses to stressors indicated a significant inverse relationships of Problem Analysis and Action and Specificity of Planning with severity of stressors. That is, children having the most difficulties in coping with stressors were those with the most poorly developed skills in recognizing problems, establishing goals, being oriented to try to actively solve their problems, and thinking through means-ends relationships. Thus, linkages were made with perception of stressors in middle school and both social problem solving training and social problem solving abilities (Elias, Rothbaum, & Gara, 1983; Elias, Rothbaum, Gara, Clabby, & Schuyler, under consideration).

Despite this evidence of success, students participating in the

project continued to be assessed to determine maintenance of skills gains, both in the immediate transition and in response to stressors that occur throughout the school year. Preliminary finding revealed that the pre-existing relationships between knowledge of social problem solving principles and application of problem solving to troublesome situations almost completely vanished. Sixth graders, it appears, often do not apply the social problem solving knowledge they do possess to its full potential. This most recent evidence suggests that the two year social problem solving program was effective, but the effects are not as robust as originally sought. Children seem to make the transition more smoothly, reporting significantly fewer stressors, and these results are tied both to prior training and to social problem solving skills (Elias et al., 1983). However, there is evidence that stressors increase over the course of middle school and that children have an increasingly difficult time putting whatever skills they have into use (Elias, et al., in press; Elias, Rothbaum, & Gara, under revision).

Taken as a whole, these findings suggested that an unmet need was the development of procedures that would allow children under stress greater access and utilization of those skills they do possess. Rather than embark on a program of research focusing on training new skills, our next focal question became: How can we best stimulate applications of student's social problem solving thinking within the middle school educational setting?

The Current Research Cycle

The program of action research just described has led to a current

program of research and development of programs to faciliate, prompt and strengthen students thinking skills within the middle school structure. Our first step was finding a niche in the instructional routine of the middle school and targeting key skills for a focused intervention. A systems analysis of the middle schools revealed that their hub was their discipline system. Teachers and administrators spend an inordinate amount of time in discipline-related behavior. A needs assessment strongly suggested that discipline was the overriding concern of educators, and of parents. About one-third of the students were seen as lacking in self-control, decision-making, and problem solving skills and a sense of responsibility and direction. These concerns mirrored broader state and national trends that still persist (Boyer, 1983; Crisci, 1981; Pace, 1984; Wayson & Associated, 1982).

The middle schools assessed were each involved in over 2,000 formally reported detention/discipline occurrences throughout the academic year. To determine the types of behavior resulting in detention, anonymous detention records of a random sample of students from each school were examined. The following types of infractions were most frequently reported by staff of both schools: disruptive behavior (31%), disobeying rules (18%), cutting detention (17%), verbal aggression (11%), and physical aggression (10%). These are the kinds of behaviors characteristic of antisocial, impulsive, and acting out children who are at risk for developing an array of later life problems (Maccoby, 1983; NIAA, 1983; Patterson, 1982; Rutter, 1980).

Notably, one-third of the children are repeated offenders despite

undergoing standard school discipline procedures. From a systems point of view, the latter groups of children merit special concern, as they drain personal and organizational resources in a way that harms themselves and every aspect of school functioning. Lastly, administrators in both schools recognized that the current discipline procedures are not corrective and thus did not provide children with skills needed to cope with the problems that led them to have difficulty.

Therefore, the focus of our current work uses the school discipline system as an intervention entry point. We have designed a program of studies to test and compare three distinct intervention approaches, each of which includes a corrective componenet, as alternatives to the punishment-oriented traditional detention/suspension discipline system. All three approaches differ in the amount of structure, staff training and duration of contact, but are similar in that they engage students in activities to stimulate reflection and problem solving to develop alternative ways to handle situations that are causing repeated problems in school adjustment. They are also similar in that they include follow-up contacts to foster student responsibility for implementing their new plan, and continue to problem solve any obstacles they encounter while attempting to reach their goal.

One of the interventions involves student completion of a problem solving worksheet designed to facilitate students' use of problem solving thinking skills around an infraction of school rules, or a lack of self-management in meeting academic demands. Students first complete the worksheet independently, and are then encouraged to fully develop a

specific goal and plan for handling the problem situation in the future. In the second approach, students attend a six session weekly mini-course after school entitled RAPS (Repeated Application of a Problem Solving Strategy). The group sessions provide students with a vehicle for repeated practice in using the problem solving thinking steps around everyday problems that arise. In addition, students self-monitor their problems between meetings and then discuss these situations in the group, using the worksheet questions as a guide. The students are encouraged to develop plans and rehearse the actual behaviors and words that they would use through role-playing their plan, obtaining feedback on their performance from the group, and continuing to refine their plan until they feel that they have developed a plan that is realistic and likely to be effective. In addition to developing their plan, the student, again with the help of the group, is asked to consider any possible obstacles that could interfere with their success in implementing their plans. Plans for dealing with obstacles are also considered.

The third intervention approach involves specific training in skills that have been targeted as prerequisities to effective problem solving and social skills. These key skills are developed through a mini-course entitled PRIDE (problem solving, responsibility and discipline enhancement). Structured exercises help students to (a) identify specific situations that are problematic and physical/situational cues that are related to poor performance (b) "stop and think" through training in a "Keep Calm" deep breathing procedure the students can use to inhibit impulsive action, reduce stress and increase their ability to concentrate, (c) identify

and use specific social approach skills, to avoid provoking and/or escalating tensions with adults and peers, and (d) repeatedly practice and develop success experiences to generate positive expectancies for problem solving and a "set" that there are always alternatives one can consider when faced with a problem or decision, even if obstacles are encountered. All of the skills included in the PRIDE course have been identified by empirical studies as necessary for adequate behavioral adjustment (Elias & Gordon, 1983). All three approaches will be compared and contrasted to students receiving the standard school discipline procedures.

In the process of this work we are confident that we will learn valuable information concerning how schools can promote students social and academic adjustment. We are already learning a tremendous amount about just as critical an issue, which is, how to integrate new programs into schools in a manner that works and is durable.

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